

III. REMARKS/ARGUMENTS

A. Status of the Claims

Claims 1-19 are pending. Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as allegedly rendered obvious by U.S. Patent App. Pub. No. 2004/0054854 to Thiyagarajan *et al.* (“Thiyagarajan”) in view of U.S. Patent No. 6,029,175 to Chow *et al.* (“Chow”). Applicants respectfully request reconsideration of the rejections of these claims for at least the reasons discussed below.

B. Claim Rejection Under 35 U.S.C. § 103(a)

Claims 1-19 stand rejected as allegedly rendered obvious by Thiyagarajan in view of Chow. Specifically, the Office Action admits that Thiyagarajan does not disclose “accessing the changed data responsive to the message is particularly, in the form of a request and further where the client is a computer.” Office Action, page 2. Thus, the Office Action refers to Chow, which allegedly discloses this and other elements. *Id.* at 3. Thus, the Office Action contends that

it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the means of Chow for notifying client device users of updates [thereby] enabling the client device browser to generate [a] request for fetching updates [that] utilize[s] the updates identified in the notification and the address from the server device hosting said update[s], thus making the request independent of the intermediate computer[’]s handing [of] the notification[,] particularly when transmission is over the Internet. One would be motivated to update information on the client computer[,] such as stock-ticker in which content within a document changes rapidly updating the browser’s display [with] such information changes automatically updating documents on the client updating information within a previously viewed document, as taught by Chow.

Office Action, page 3. To the extent that this rejection is understood, Applicants respectfully disagree.

Even in light of KSR International Co. v. Teleflex Inc., No. 04-1350, 2007 U.S. LEXIS 4745 (U.S. April 30, 2007), there must be a showing of a “teaching, suggestion or motivation” to make the proposed combination of references. Assuming arguendo that the proposed combination is proper, the combined references fail to disclose or suggest all claim limitations of the pending claims. For example, Claim 1 recites:

1. A method for updating information on a client computer, the method comprising:
 - creating a data cache as a subset of a larger database;
 - performing a periodic refresh of the data cache from the larger database;
 - identifying change in the data cache;
 - responsive to the change in the data cache, sending a message to the client computer;
 - responsive to the message, automatically requesting the changed data; and
 - updating the information on the client computer with the changed data.

Appl'n, Claim 1.¹ Contrary to the Office Action's assertion, neither Thiyagarajan nor Chow disclose the steps of “performing a periodic refresh of the data cache from the larger database” and “responsive to the change in the data cache, sending a message to the client computer.” Specifically, Thiyagarajan does not disclose “[a] method for updating information on a client computer”; “responsive to the change in the data cache, sending a message to the client”; and “updating the information on the client computer with the changed data.” As noted previously,

¹ Independent claims 12, 13, 14 and 19 recite limitations similar to those in independent claims 1 and 11.

Thiyagarajan discloses a hybrid method of updating cache memory. See Thiyagarajan, ¶ 0017. Depending on the cache update policy, one of the processes from Figs. 10 or 11 is performed on the remote servers. See ¶¶ 53, 54: After the process of either figure is completed, the caches (e.g., 227, 228, 229) on the remote servers (e.g., 221, 222, 223) are updated.

The Office Action's own summary of the disclosure of Thiyagarajan makes clear that the disclosed method does not disclose sending any additional messages, notifications, etc. being sent to client computers (e.g., users 230, 231, 232), or that information on client computers (e.g., users 230, 231, 232) is updated with changed data. Indeed, paragraph 6 of the Office Action (spanning pages 10 and 11) does not mention or refer to providing notifications, etc. to client computers (e.g., users 230, 231, 232). All that is disclosed is sending notifications to the remote servers. The discussion focuses on the notifications provided to the remote servers, and how the remote server's cache is updated. Thus, there is no basis for the Office Action finding this argument not persuasive.

Combining Chow with Thiyagarajan does not disclose the elements of the claimed invention. Specifically, Chow is directed to a “Revision Manager” for “automatically retrieving changed documents previously accessed from network and internetwork servers.” Chow, Col. 3, ll. 60-64. The Revision Manager “operates as an intermediary between a client . . . and a local or remote network server.” Id., Col. 3, l. 65 - col. 4, l. 1. The Revision Manager does not perform a “periodic update” of its cache because it does not update the cache, regardless of changes, periodically. Instead, it uses a Polling Daemon to periodically poll “the appropriate documents” in order to determine if the documents have changed. Id., Col. 18, l. 63 - col. 19, l. 41. “When the document is determined to have been modified, the Revision Manager saves the updated

document to its cache and then informs each interested party's registered browser" of the change. Id., Col. 6, ll. 7-10. Thus, Chow does not disclose the use of a periodic update to update its cache.

Further, Chow does not disclose "sending a message to the client computer" based on "the change in the data cache." Instead, Chow's notification occurs responsive to "the document [being] determined to have been modified." Id., Col. 6, ll. 7-8 (emphasis added). Thus, the change in the data cache is not the reason for the notification; it is the change in the document at the remote server, and Applicants respectfully request that this rejection be withdraw.

In addition, claim 7 recites that the message of claim 1 "has at least two states, one state indicating no change in the data cache, and the other state indicating change in the data cache."² The Office Action alleges that Paragraph [0015] of Thiyagarajan discloses this element. This paragraph, which discusses the notification cache update method, only discloses a message having one state -- a state indicating "data changes in [a] data store". Thiyagarajan, ¶ [0015]. Thiyagarajan describes this method further:

Notification relies on the data store 205 to notify remote server 221 that data in the cache is inconsistent with the data stored on the data store. Data store 205 maintains a record of what information remote server 221 has in its cache. When changes are made to a piece of data that resides on the cache on the remote server 221, the data store 205 notifies the remote server 221 that data has changed. Accordingly, after receiving notification, the remote server 221 accesses the data store 205 for the data updates. To alleviate performance and security concerns, a dedicated communication link is often used for notification and updates

Id. The Office Action's citation of Chow's "response status code" does not cure this deficiency because it is not part of the message that is sent to the client

² Independent claim 19 recites a similar limitation.

computer. See Claim 1. Instead, the disclosure cited by the Office Action is part of the Revision Manager Polling Daemon, which polls remote web servers for appropriate documents. The response from the remote web server includes the “response status code.” “[S]tatus code 200 means an updated document is attached.” Col. 19, ll. 31-32. However, Chow does not disclose that this response has a state that indicates no change. In fact, Chow states that “a status code other than 200 or 304” is “interpret[ed] as an error condition.” Thus, Chow does not disclose that the message of claim 1 “has at least two states, one state indicating no change in the data cache, and the other state indicating change in the data cache.” Even if Chow’s “response status code” had two states, because it is not sent to the client computer, Chow does not disclose this element. Therefore, Applicants respectfully request that this rejection be withdrawn.

Notably, independent claim 19 recites:

A method for updating information on a browser on a client computer, the method comprising:

creating a data cache as a subset of a larger database;
performing a periodic refresh of the data cache from the larger database;
identifying a data change in the data cache;
responsive to an identified change in the data cache:
 sending a change notice to a notification application;
 sending a heartbeat message from the notification application to the browser, the heartbeat message including a notification message indicating one of change and no change;
 receiving a request for the changed data from the browser;
 sending the changed data to the browser; and
 updating the browser with the changed data.

Appl'n, Claim 19 (emphasis added). Therefore, as discussed above, neither Thiyagaranjan nor Chow disclose the steps of “performing a periodic refresh of the data cache”; “identifying a data change in the data cache”, and “sending a heartbeat

message from the notification application to the browser, the heartbeat message including a notification message indicating one of change and no change," this claim is in condition for allowance.

IV. CONCLUSION

Applicants respectfully submit that the application is in condition for allowance. In the event any fees are necessary, please charge such fees, including fees for any extensions of time, to the undersigned's Deposit Account No. 50-0206. Should any outstanding issues remain, the Examiner is invited to telephone the undersigned at the number listed below.

Respectfully submitted,

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